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Jason H. Vick
Sheridan Ross, PC
Suite # 1200
1560 Broadway
Denver, CO 80202

EXAMINER	
SKOWRONEK, KARLHEINZ R	
ART UNIT	PAPER NUMBER
1631	

NOTIFICATION DATE	DELIVERY MODE
07/24/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jvick@sheridanross.com

Office Action Summary	Application No.	Applicant(s)	
	10/525,749	KOUCHI ET AL.	
	Examiner	Art Unit	
	KARLHEINZ R. SKOWRONEK	1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-15 and 17-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-15 and 17-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Status

Claims 1-3, 5-15, and 17-20 are pending.

Claims 4, 16, and 21 are cancelled.

Claims 1-3, 5-15, and 17-20 have been examined.

Claims 1-3, 5-15, and 17-20 are rejected.

Priority

This application is the National Stage application under 35 USC 371 of PCT/JP03/10735, which was filed on 26 August 2003 and claims priority to Japanese application 2002-246633, which was filed on 27 August 2002 in Japanese.

Response to Arguments

The objections to claims 1-3, 9, 10, and 16-21 for missing articles and grammar are withdrawn in view of the amendments to the claims.

Claim 10 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 10 fails to further limit claim 1. Both claim 1 and 10 recite the limitation of displaying time-series trend with information related to the source of biological information.

Response to Arguments

Applicant's arguments filed 25 March 2009 have been fully considered but they are not persuasive. Applicant argues that claim 10 further limits claim 1 because biological information in addition to the abnormal information is displayed. The argument is not persuasive. Claim 1 recites the display of abnormal biological information and source of the biological information, whereas claim 10 broadly recites the display of biological information and source of the biological information. The recitation of "biological information" in claim 10 does not limit claim 10 to any particular biological information. The phrase biological information reads equally on abnormal biological information recited in claim 1 or to any other biological information. Claim 10 is broader than claim 1 and thus is not further limiting.

Claim Rejections - 35 USC § 112

Response to Arguments

The rejection of claims 1-3 and 5-21 as indefinite under 35 USC 112, Second Paragraph is withdrawn in view of the amendments to the claims.

Claim Rejections - 35 USC § 101

The rejections of claims 16 and 21 as non-statutory under 35 USC 101 is withdrawn in view of the cancellation of the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The following rejection has been amended as necessitated by amendment.

Claims 1, 3, 5-8, 10-14 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schradi et al. (US Pat No. 5,860,918), in view of Sakaguchi et al. (US PAT No. 5,807,246), and in view of Dia medical system Kabushiki Kaisha "JP787".

The claims are drawn to a device comprising means for obtaining information, for making a determination of abnormal information, and for displaying information. In some

embodiments, the display is modified with a visual alarm, thereby altering the display style. In some embodiments, the biological information is displayed in association with the source of biological information. In some embodiments, the device makes a determination of if the information exceeds or falls below a threshold. In an embodiment, subsequent biological information that is determined to be not abnormal is displayed in the original style and the previous abnormal biological information is maintained. In an embodiment, the display allows the discrimination of the cases: a case in which the current biological information is abnormal; a case in which past and current biological information are abnormal; and case in which past biological information is abnormal while current information is normal.

Schradi et al. shows a biological information trend display device. Schradi et al. shows that the device has a means for obtaining biological data (col. 2, line 37-58). Schradi et al. shows the device has means for determining if the obtained biological information is abnormal (col. 2, line 59-65). Schradi et al. shows a processor (col. 5, line 49). Schradi et al. shows the device has means for displaying a time-series trend for each of a plurality of biological information (col. 3, line 26-32). Schradi et al. shows that a graph displaying area and a data type displaying area are provided and a plurality of biological information are displayed in the same graph area (fig. 2). Schradi et al. also shows that displayed with the time series is information related to the source of biological information (fig 2). Schradi et al. shows information determined as abnormal is displayed in association with information related to the source of information (col. 10, line 26-27). Schradi et al. shows text related to the source of the biological information

is displayed in the data display area and in the same style (col. 9, line 47-52). Schradi et al. shows the different sources have different behaviors (fig. 2). Schradi et al. suggests in figure 3 that the displaying means displays a source for abnormal biological information but does not display the source of information that is not abnormal (col. 9, line 15-32). Schradi et al. shows that the determination comprises a determining if the information exceeds or falls below a defined level (col. 6, line 1-6). Schradi et al, shows in figures 2 and 3, the values of events that have crossed a threshold value. What is displayed in the figure suggests a higher threshold in an upper area and lower threshold in a lower region.

Schradi et al. does not explicitly show that the trend display style is changed for biological information that is determined as abnormal.

Sakaguchi et al. shows a display device. Sakaguchi et al. shows the display device has a CPU (processor) that executes the algorithm of figure 4. Sakaguchi et al. shows that the display style changes for biological information determined as abnormal, the change in style is color and abnormal and normal have different styles. (col. 3, line 15-17). In addition, Sakaguchi et al. shows that all normal data has the same style, i.e. not flashing (col. 3, line 15-17). Sakaguchi et al. suggests data can be displayed on a multicolor LCD display can be made more complex by increasing the color intensity, or changing the flashing cycles, so that when the degree of deviation from normal range is large, this can be distinguished by changing the flashing cycles so that flashing occurs in shorter cycles, reading on different display styles distinguishing normal from abnormal (col. 3, line 42-46). Sakaguchi et al. et al. shows the advantage of changing

display styles is that it reduces ambiguity and makes it easier to read (col. 3, line 29 and col. 4, line 14-15).

Schradi et al., and in view of Sakaguchi et al. do not show a plurality of biological information that is overlapped or embodiments where subsequent biological information that is determined not abnormal is displayed in the original style and the previous abnormal biological information is maintained.

JP787 shows a trend display device for biological information. Figure 2 shows that the plurality of biological information is overlapped. JP787 shows the device has information obtaining means, an abnormal information determination means, and a display means (p. 1). JP787 shows that the display mean displays information determined to be abnormal and identifies its source (p. 6, para. 2). JP787 shows the determination of an abnormal event causes the display to present the information (p. 6, para. 2). JP787 shows the trend style change corresponds to a change in color of the trend information (p. 5-6). JP787 shows that each source of information is coded by color (p. 5). JP787 shows the color coded source undergoes a color change when the source exceeds or drops below a threshold (p. 5 and exemplified on p. 6). JP787 shows that subsequent and current biological information are displayed reading on subsequent biological information that is determined not abnormal is displayed in the original style and the previous abnormal biological information is maintained, in which the styles of normal information and abnormal information are different (p. 5-6 and figure 2). JP787 shows that the display means allows discriminating between cases where current information is abnormal; past and current information are abnormal and past information

is abnormal but current information is not abnormal (p.7-8). JP787 shows that changing the display style to indicate the source of the abnormal information has the advantages of focusing attention on the abnormal data and leads to the administration of immediate, proper treatment (p. 3 and p. 8).

It would have been obvious to one of ordinary skill at the time of invention to modify the display device of Schradi et al. with the display formatting of Sakaguchi et al. because Sakaguchi et al. shows the advantage of changing display styles is that it reduces ambiguity and makes it easier to read. It would have been further obvious to one of ordinary skill at the time of invention to modify the display device of Schradi et al., and in view of Sakaguchi et al. with the previous abnormal biological information and subsequent normal biological information and discrimination of cases of JP787 because JP787 shows that indicating the source of the abnormal information by changing display styles has the advantages of focusing attention on the abnormal data and leads to the administration of immediate, proper treatment.

Response to Arguments

Applicant's arguments filed 25 March 2009 have been fully considered but they are not persuasive. Applicant argues that Shradi et al. does not show that the times series trends are overlapped and displayed in the same display area. The argument is not persuasive because JP787 shows a trend display device for biological information where the plurality of biological information is overlapped and displayed in the same display area.

Claims 2 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1, 3, 5-8, 10-14 and 17-20 above, and further in view of Nelwan et al.

Claim 2 is directed to a computer readable medium comprising a stored program for a display device. Claim 15 is directed to biological information that is related to ST level.

Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1, 3, 5-8, 10-14 and 17-20 above shows a display device where abnormal biological information is displayed in a display style different from normal biological information.

Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1, 3, 5-8, 10-14 and 17-20 above do not explicitly show a computer readable medium.

Nelwan et al. shows a trend display system and device for obtaining biological information determining and displaying information related to ST level. The device comprises a storage review unit having a display means, a means for determining abnormal data, and means for obtaining biological information (p. 1355, col. 2, para. 2). Nelwan et al. shows an abnormal information determining means to provide clinical alarms upon abnormal information as a result from, for example, measurement lead failure (p. 1355, col. 2, para. 3). Nelwan et al. shows a computer readable medium (p. 1355, col. 1, para. 3). Nelwan et al. shows that the multiple information sources can be

displayed (p. 1356, col. 1, para. 6). Nelwan et al. shows that by marking time points that a change in the display style is affected (p. 1356, col. 1, para. 5). Nelwan et al. shows that multiple information is in the same style (p. 1356, col. 1, para. 6). Nelwan et al. shows that information shows different behaviors (p. 1356, col. 1, para. 6). Nelwan et al. shows display means presents information related to ST level trends and source related lead information (p. 1355, col. 2, para. 3 and p. 1356, col. 2, para. 2-3).

It would have been obvious to modify the display device where abnormal biological information is displayed in a display style different from normal biological information of Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1, 3, 5-8, 10-14 and 17-20 above with the computer readable medium and ST level monitoring of Newlan et al. because the substitution of one known element for another would have yielded predictable results.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1, 3, 5-8, 10-14 and 17-20 above, and further in view of Manuel et al. (US Pat No. 8,806,891).

Claim 9 is directed to an embodiment in which the display area for displaying information related to the source of biological information has an inner indication area and an outer indication area and wherein the outer area indicates abnormal biological information the past and the inner area indicate current abnormal biological information.

Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1, 3, 5-8, 10-14 and 17-20 above shows a display device where abnormal biological information is displayed in a display style different from normal biological information discriminates cases.

Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1, 3, 5-8, 10-14 and 17-20 above does not show a display area having an inner and outer area.

Manuel et al. is directed to a graphical display for conveying status information. Manuel et al. shows a display area of an indicator having an inner and outer area that allows the discrimination of cases (col. 3, line 43-44). Manuel et al. shows that the inner area changes color when a request has been processed (col. 3, line 47-48) Manuel et al. shows that outer area changes color when a request is made (col. 3, line 44-47). The indicator of Manuel et al. shows a change is status in a temporal frame of reference. For example, the information of the outer area in the indicator of Manuel et al. shows the change in status when a request is made, similarly the instantly claimed outer area indicates a changed status in a past event, i.e. abnormal event in the past. Thus the indicator of Manuel et al. is viewed to read on the limitations of claim 9 requiring an indicator having inner and outer areas. Manuel et al. shows the advantage of the graphical indicator is it allows one to have instant knowledge of the status of a process (col. 9, line 17-20).

It would have been obvious to one of ordinary skill in the art to modify the display device where abnormal biological information is displayed in a display style different

from normal biological information discriminates cases of Schradi et al., in view of Sakaguchi et al., and in view of Dia medical system Kabushiki Kaisha "JP787" as applied to claims 1, 3, 5-8, 10-14 and 17-20 above with the indicator display area of Manuel et al. because Manuel et al. shows the advantage of the graphical indicator is it allows one to have instant knowledge of the status of a process.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARLHEINZ R. SKOWRONEK whose telephone number is (571)272-9047. The examiner can normally be reached on 8:00am-5:00pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie Moran can be reached on (571) 272-0720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. R. S./
Examiner, Art Unit 1631

22 July 2009

/Marjorie Moran/
Supervisory Patent Examiner, Art Unit 1631